WSDOT Business Needs

- Transportation Project Planning
  Coordinate with local agencies on priorities for transportation system activities
- Transportation Project Scoping
  Determine activities and resulting requirements needed to resolve transportation system challenges such as safety, mobility, and preservation (maintenance)

The Solution:

A tool to put adequate and appropriate environmental data in context with proposed transportation system project locations being scoping.

Put as much critical information needed for environmental review in one place. Central management of that data saves time at all regions.
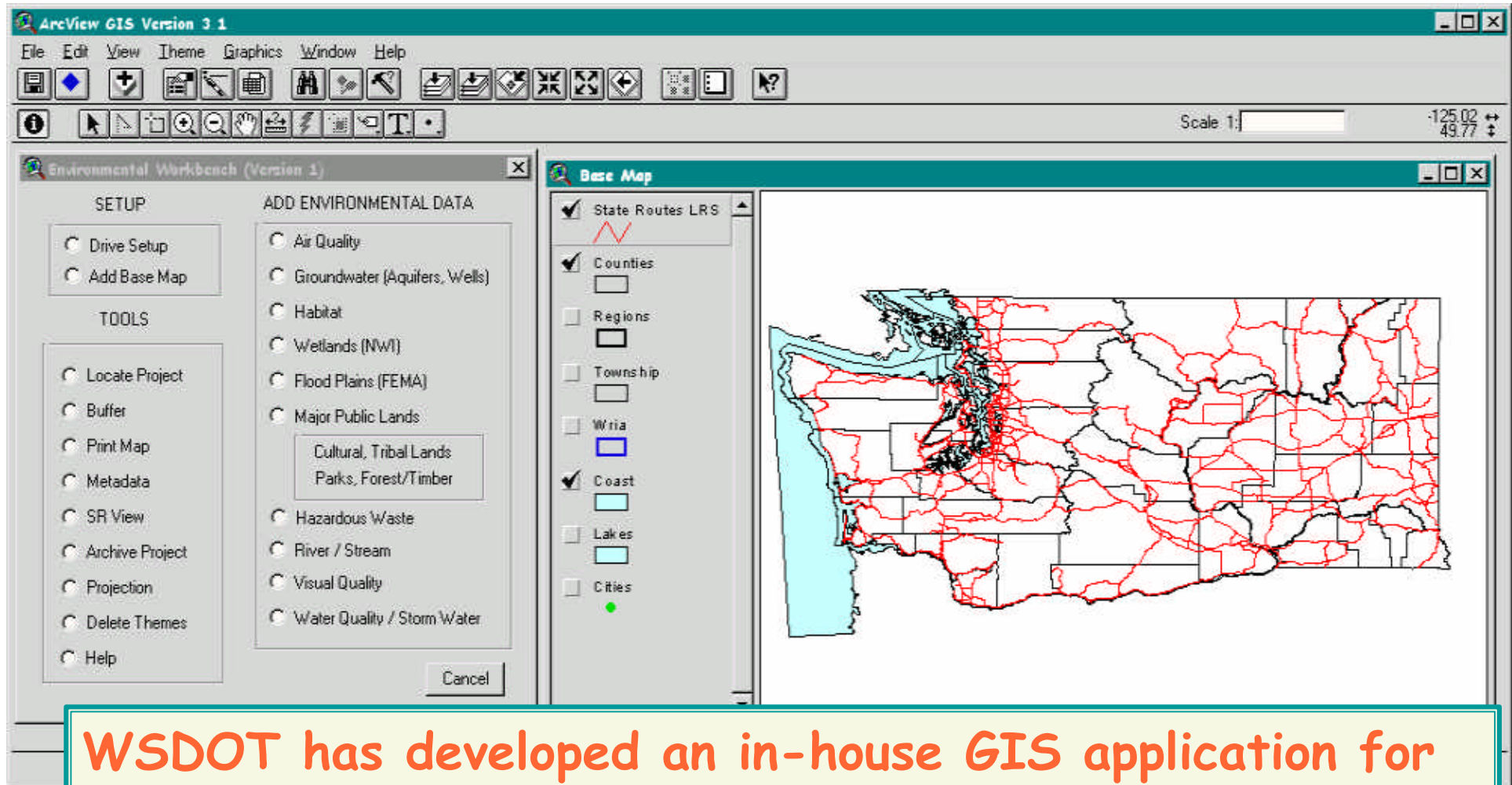
Technical Components

- ArcView extension /menu

- floating license management for ArcView

- environmental data improvements

Design, development, testing and deployment were accomplished within ONE calendar year!

ArcView GIS Version 3.1

File Edit View Theme Graphics Window Help

Scale 1:

-125.02
49.77

Environmental Workbench (Version 1)

SETUP
- Drive Setup
- Add Base Map

TOOLS
- Locate Project
- Buffer
- Print Map
- Metadata
- SR View
- Archive Project
- Projection
- Delete Themes
- Help

ADD ENVIRONMENTAL DATA
- Air Quality
- Groundwater (Aquifers, Wells)
- Habitat
- Wetlands (NWI)
- Flood Plains (FEMA)
- Major Public Lands

  Cultural, Tribal Lands
  Parks, Forest/Timber

- Hazardous Waste
- River / Stream
- Visual Quality
- Water Quality / Storm Water

Cancel

Base Map

- ✔ State Routes LRS
- ✔ Counties
- Regions
- Township
- Wria
- ✔ Coast
- Lakes
- Cities

WSDOT has developed an in-house GIS application for use in scoping transportation projects. The Environmental GIS Workbench provides a basemap and a form menu for accessing environmental data and analysis tools within the agency's computer network.
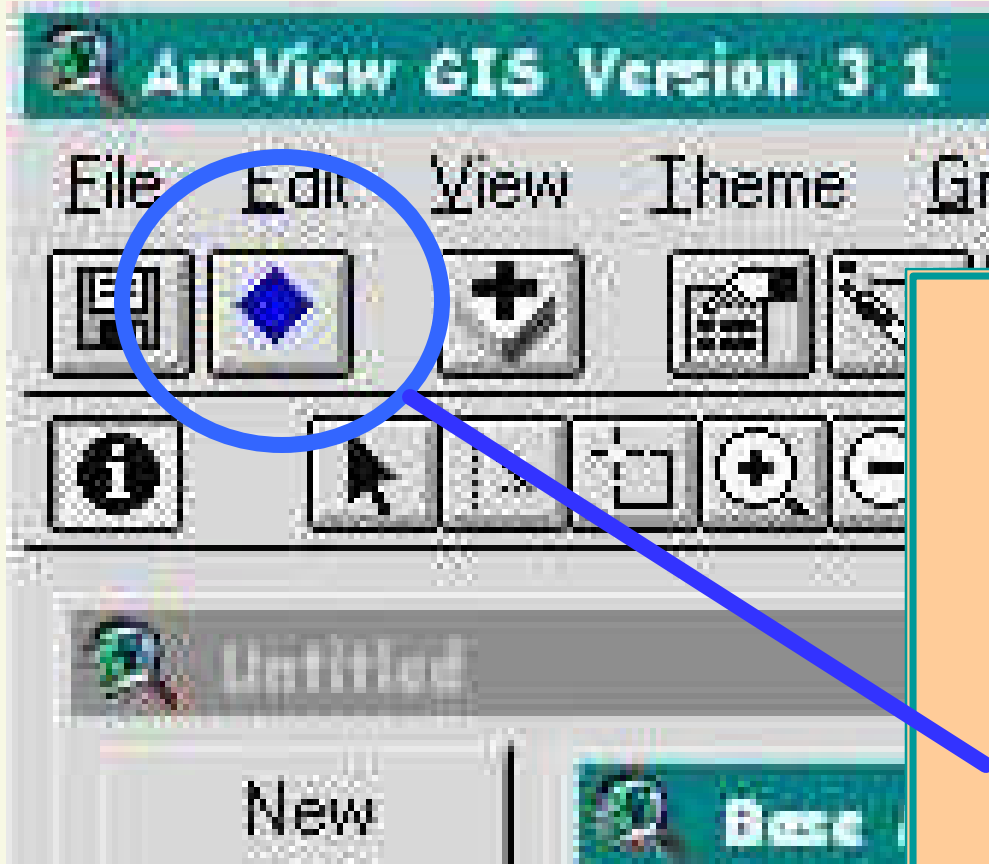
The key that unlocks the Environmental GIS Workbench Extension is

"THE BLUE BUTTON"

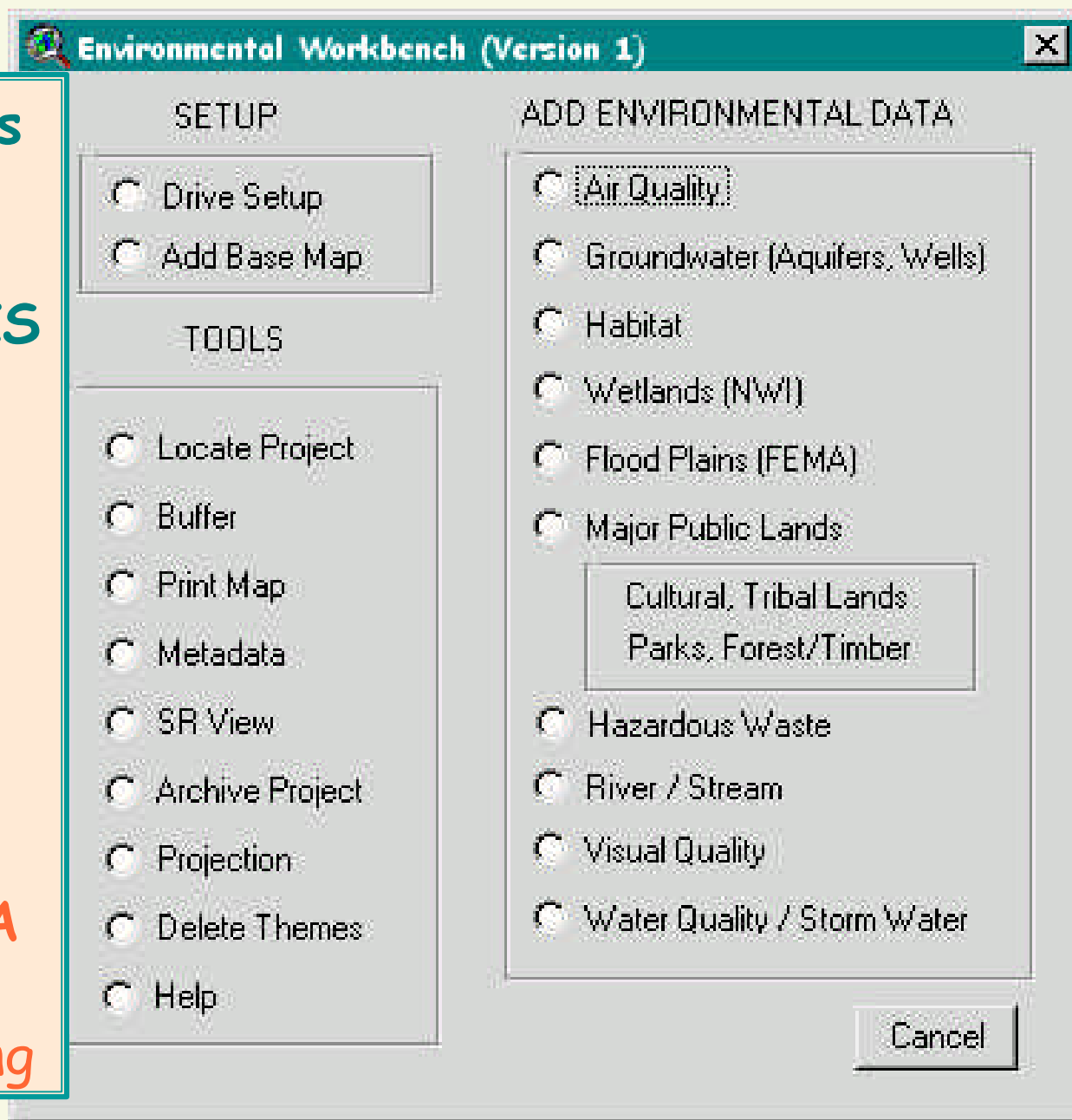It is the only modification to the basic ArcView interface.

The Main Menu is the "dashboard" for the Environmental GIS Workbench.
Areas:
SET UP
system stuff

TOOLS
Doing things

ADD ENVI DATA
Get to data
needed for scoping

Environmental Workbench (Version 1)

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- ○ Add Base Map

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- ○ Buffer
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- ○ SR View
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- ○ Projection
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- ○ Major Public Lands
    - Cultural, Tribal Lands
    - Parks, Forest/Timber
- ○ Hazardous Waste
- ○ River / Stream
- ○ Visual Quality
- ○ Water Quality / Storm Water

Cancel

Proposed projects are located, buffered and then environmental themes are added

There are tools linking the map to state highway video log images.

Red flag links maps to video log images of state highways.
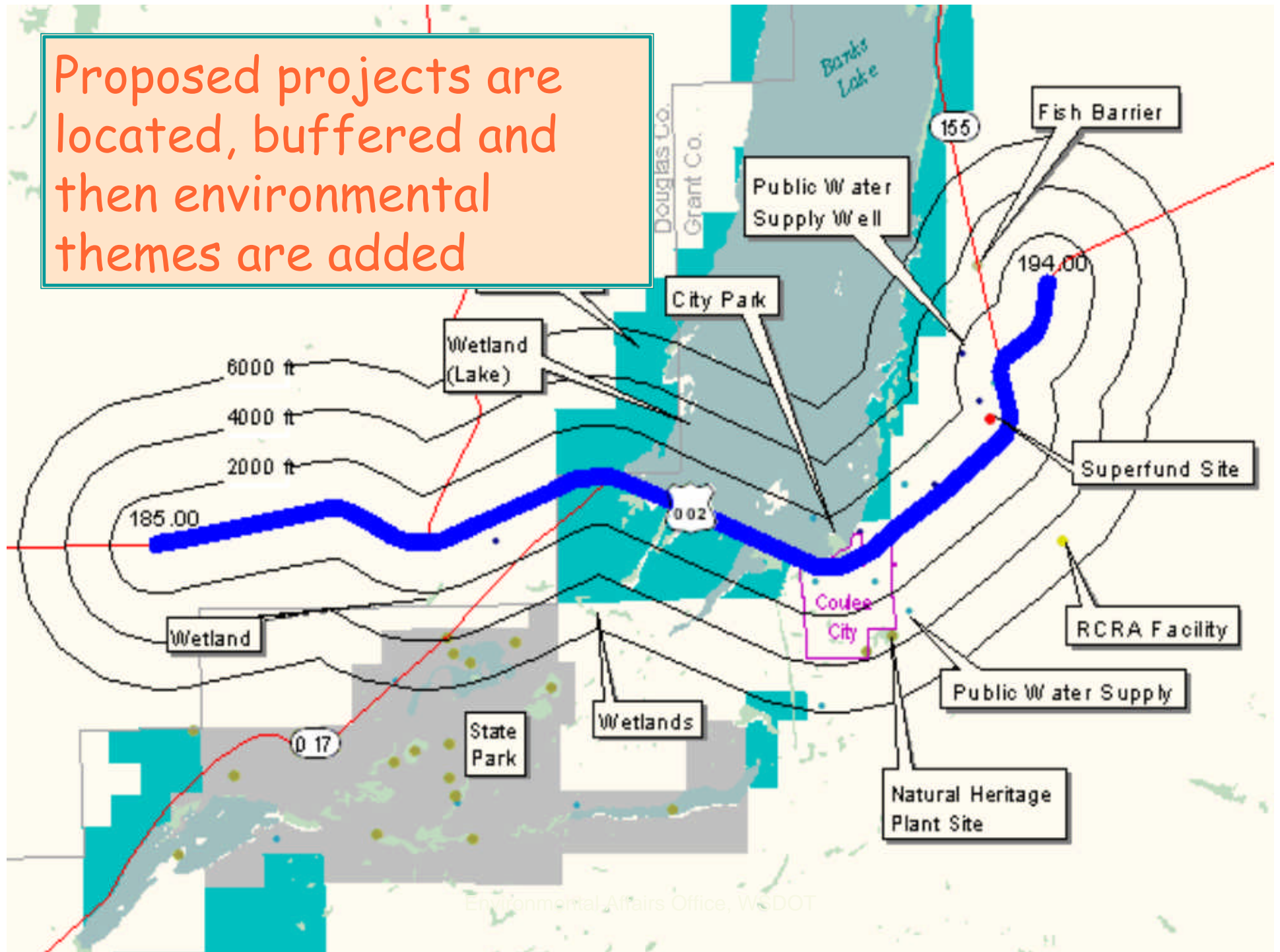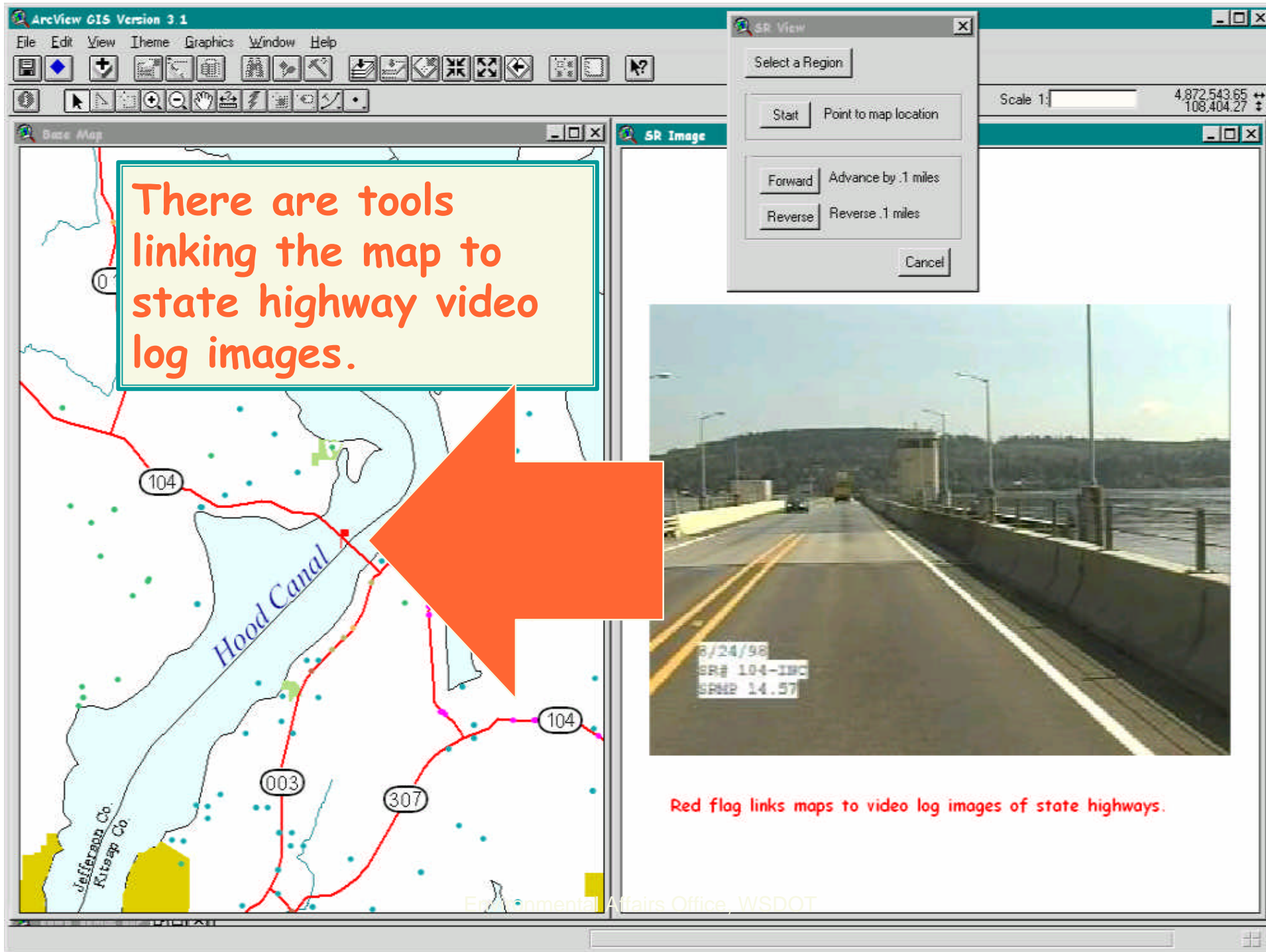
Fish Passage Barriers Associated with Washington State Highways

Section Index

Identification Information
Data Quality Information
Spatial Data Organization Information
Spatial Reference Information
Entity and Attribute Information
Distribution Information
Metadata Reference Information

Viewing "metadata" (information about the real data you are using).

WSDOT uses the national standard format for metadata.

There are tools to find out about the source and quality of the environmental data being viewed.

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- Water Quality / Storm Water

Cancel

MetaData

Select a layer

OK

Cancel

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tes
A
Barriers
Group A 1 Year Protection Zones

Citation Information:
Originator: Washington Department of Fish and Wildlife and the Washington

Wetlands within project buffer zone

milepost 18.00

0 11

High level identification of possible environmental issues surrounding a proposed project.

Chuckanut Bay

005

Public Water Supply Well within project buffer zone

The Workbench interface provides tools and data for high level "flagging" of environmental issues near a proposed project location.

Project runs t

milepost 14.00

Natural Heritage Site within project buffer zone